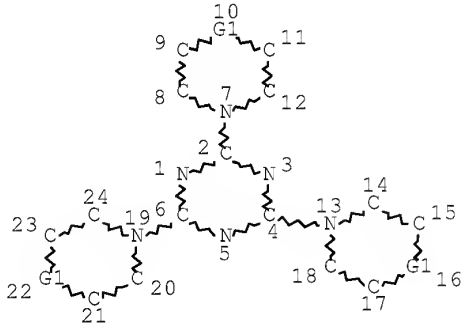
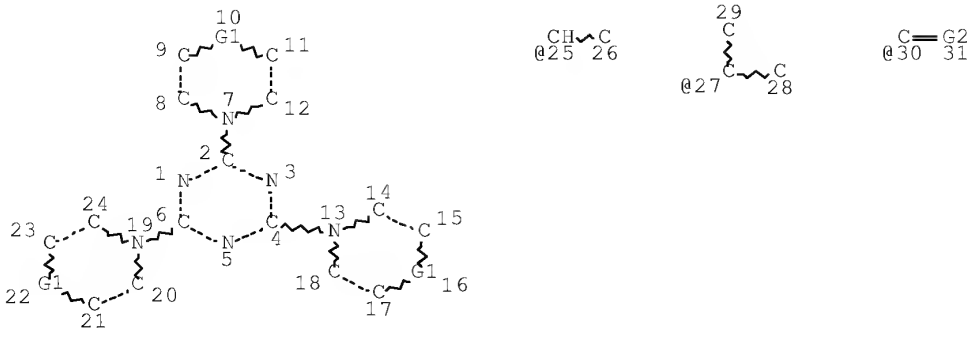
EIC 1700 STIC structure search


```
=> fil reg
FILE 'REGISTRY' ENTERED AT 13:22:15 ON 06 MAR 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 MAR 2009  HIGHEST RN 1115640-24-8
DICTIONARY FILE UPDATES:   4 MAR 2009  HIGHEST RN 1115640-24-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d que stat l12
L3              STR
```



```
VAR G1=C/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  24

STEREO ATTRIBUTES: NONE
L5          255 SEA FILE=REGISTRY SSS FUL L3
L10             STR
```



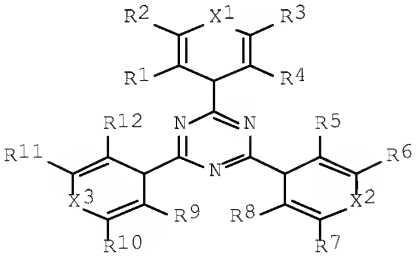
```
VAR G1=CH2/25/27/30/N
VAR G2=O/S/N/C
NODE ATTRIBUTES:
NSPEC   IS RC     AT  26
NSPEC   IS RC     AT  28
NSPEC   IS RC     AT  29
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  31

STEREO ATTRIBUTES: NONE
L12           2 SEA FILE=REGISTRY SUB=L5 SSS FUL L10

100.0% PROCESSED     255 ITERATIONS                              2 ANSWERS
SEARCH TIME: 00.00.01


=> d his

     (FILE 'HOME' ENTERED AT 13:00:47 ON 06 MAR 2009)

     FILE 'HCAPLUS' ENTERED AT 13:01:05 ON 06 MAR 2009
                E US20070194692/PN
L1              1 S E3
                SEL RN

     FILE 'REGISTRY' ENTERED AT 13:01:28 ON 06 MAR 2009
L2              5 S E1-5

     FILE 'LREGISTRY' ENTERED AT 13:04:26 ON 06 MAR 2009
L3                STR

     FILE 'REGISTRY' ENTERED AT 13:07:03 ON 06 MAR 2009
L4              7 S L3
L5            255 S L3 FUL
L6              2 S L2 AND L5
                SAV L5 GAR568/A

     FILE 'HCAPLUS' ENTERED AT 13:10:15 ON 06 MAR 2009
L7              2 S L6
```

```
     FILE 'LREGISTRY' ENTERED AT 13:12:06 ON 06 MAR 2009
L8              STR L3

     FILE 'REGISTRY' ENTERED AT 13:16:38 ON 06 MAR 2009
L9            7 S L8 SSS SAM SUB=L5
L10             STR L8
L11           0 S L10 SSS SAM SUB=L5
L12           2 S L10 SSS FUL SUB=L5
L13           2 S L6 OR L12


=> fil hcap
FILE 'HCAPLUS' ENTERED AT 13:22:22 ON 06 MAR 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 6 Mar 2009  VOL 150 ISS 11
FILE LAST UPDATED: 5 Mar 2009  (20090305/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d ibib abs hitstr hitind l7 1-2

L7   ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         2006:542440  HCAPLUS  Full-text
DOCUMENT NUMBER:          145:37007
TITLE:                    Light emitting element and light emitting device
                          having the light emitting element
INVENTOR(S):              Nomura, Ryoji; Nakashima, Harue; Shitagaki,
                          Satoko; Ikeda, Hisao
PATENT ASSIGNEE(S):       Semiconductor Energy Laboratory Co., Ltd.,
                          Japan; Sakata, Junichiro; Seo, Satoshi; Kumaki,
                          Daisuke
SOURCE:                   PCT Int. Appl., 75 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006059734	A1	20060608	WO 2005-JP22224	200511 28
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CN 101065462	A	20071031	CN 2005-80040864	200511 28
JP 2006186335	A	20060713	JP 2005-343337	200511 29
US 20070194692	A1	20070823	US 2006-590568	200608 22 current application
KR 2007086658	A	20070827	KR 2007-714513	200706 26
PRIORITY APPLN. INFO.:			JP 2004-347688 A	200411 30
			WO 2005-JP22224 W	200511 28

OTHER SOURCE(S): MARPAT 145:37007

GI



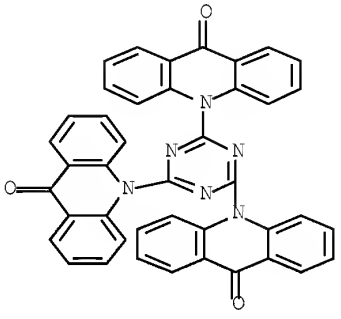
I

AB The object is to provide a light emitting element that has a different structure from that of a conventional light emitting element and includes a substance having a novel structure. It is also an object to provide a light

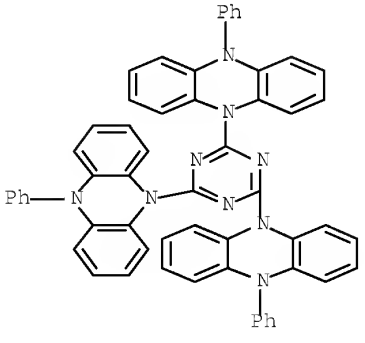
emitting device having the light emitting element. In the view of the objects described above, the present invention provides a light emitting element including a layer containing a triazine derivative I [R1-12 = H, C1-6 alkyl, alkyloxy, halo, C6-30 acyl, C1-6 alkoxycarbonyl, C6-30, preferably C6-14 aryl, C2-18, preferably C2-14 heteroarom. having monocyclic 5- or 6-membered ring, polycyclic with one 5- or 6-membered ring or both, and adjacent groups may for a ring] and a metal oxide that is an inorg. compound, provided between a pair of electrodes. Further, the present invention provides a light emitting device that has the light emitting element.

IT 866475-31-2P 866475-32-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(light emitting element and light emitting)

RN 866475-31-2 HCAPLUS
CN 9(10H)-Acridinone, 10,10',10''-(1,3,5-triazine-2,4,6-triyl)tris- (9CI) (CA INDEX NAME)



RN 866475-32-3 HCAPLUS
CN Phenazine, 5,5',5''-(1,3,5-triazine-2,4,6-triyl)tris[5,10-dihydro-10-phenyl- (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 74, 76

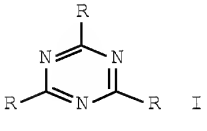
IT 866475-31-2P 866475-32-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(light emitting element and light emitting)

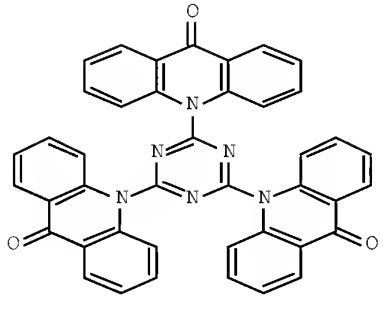
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1103132 HCAPLUS Full-text
DOCUMENT NUMBER: 143:367332
TITLE: Preparation of triazine derivatives for use in light emitting elements and light emitting devices
INVENTOR(S): Nomura, Ryoji; Nakashima, Harue; Shitagaki, Satoko
PATENT ASSIGNEE(S): Semiconductor Energy Laboratory Co., Ltd., Japan
SOURCE: U.S. Pat. Appl. Publ., 36 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050225236	A1	20051013	US 2005-87717	20050324
US 7015324	B2	20060321		
JP 2005306862	A	20051104	JP 2005-81275	20050322
PRIORITY APPLN. INFO.:			JP 2004-90696 A	20040325

OTHER SOURCE(S): CASREACT 143:367332; MARPAT 143:367332
GI


I

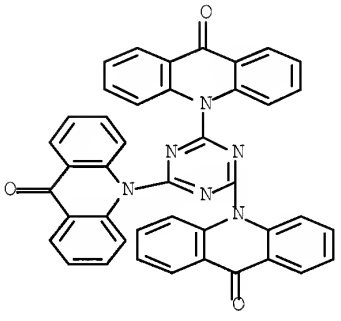

II

AB Triazine derivs., such as I [R = heterocyclyl with a monocyclic structure of a five- or six-membered ring, or a polycyclic structure including any one or both of a five-membered ring and six-membered ring, and includes any atom of nitrogen, oxygen, and sulfur], were prepared for use as a material that can be used for manufacturing a light-emitting element. The light-emitting elements have application in laptop personal computers, cellular phones, televisions,

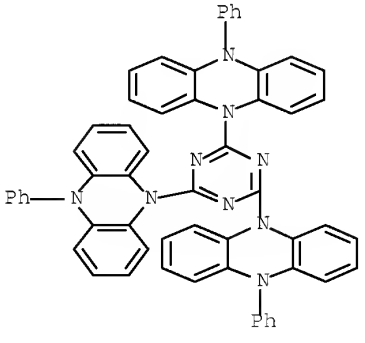
car navigation systems and lighting. The above-described electronic equipment uses a light-emitting element with a triazine derivative as a component of a pixel portion to provide favorable display images, and the electronic devices to which the present invention is applied can be driven with lower power consumption. Thus, triazine derivative II was prepared in 77% yield by refluxing acridone and cyanuric chloride in THF using NaH.

IT 866475-31-2P 866475-32-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of triazine derivs. for use in light emitting elements and light emitting devices)

RN 866475-31-2 HCAPLUS
CN 9(10H)-Acridinone, 10,10',10''-(1,3,5-triazine-2,4,6-triyl)tris- (9CI) (CA INDEX NAME)



RN 866475-32-3 HCAPLUS
CN Phenazine, 5,5',5''-(1,3,5-triazine-2,4,6-triyl)tris[5,10-dihydro-10-phenyl- (9CI) (CA INDEX NAME)



IC ICM C07D043-14
ICS H01J001-62; H01J063-04
INCL 313504000; 544198000
CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 76
IT 866475-31-2P 866475-32-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP

```
     (Preparation); USES (Uses)
        (preparation of triazine derivs. for use in light emitting elements
        and light emitting devices)
REFERENCE COUNT:          4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR
                                THIS RECORD. ALL CITATIONS AVAILABLE IN
                                THE RE FORMAT


=>
```